

## **IN THE CLAIMS**

1. (Currently Amended) A method for determining at least one of disease type and condition which comprises analyzing an absorption or emission spectrum in a specific region for cells obtained from a specimen, and determining at least one of the disease type and condition by using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease ~~within said specific region in accordance with the results of said spectral analysis, and are wave numbers appearing or disappearing after death of the cells,~~ and said specific region includes the infrared region.
2. (Canceled)
3. (Previously presented) The method according to claim 1 that determines whether or not said specimen is cancer.
4. (Previously presented) The method according to claim 3, wherein one of the wave numbers of the spectra used as said indices is  $1261\text{ cm}^{-1}$ .
5. (Previously presented) The method according to claim 1 that determines whether or not said cells have specific bacteria.
6. (Previously presented) The method according to claim 5, wherein said specific bacteria are drug resistance bacteria.
7. (Previously presented) The method according to claim 1 that determines whether or not said cells are infected by a specific virus.

8. (Currently Amended) An apparatus for diagnosing at least one of disease type and condition which comprises spectral analysis means that analyzes an absorption or emission spectrum in a specific region for cells obtained from a specimen, and diagnostic means that diagnoses at least one of disease type and condition using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease within said specific region in accordance with the results of the spectral analysis obtained with said spectral analysis means, and are wave numbers appearing or disappearing after death of the cells, and said specific region includes the infrared region.
9. (Currently Amended) A drug screening method comprising: analyzing an absorption or emission spectrum in a specific region for a target drug, and screening said target drug by using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease within said specific region in accordance with the results of said spectral analysis, and are wave numbers appearing or disappearing after death of the cells, and said specific region includes the infrared region.

10. (Cancelled)
11. (Currently Amended) The drug screening method according to ~~either claim of claim 9 or 10~~ wherein said target drug is an anti-cancer agent.
12. (Currently Amended) The drug screening method according to claim 11, wherein ~~the wave number~~ one of the at least two wave numbers of the spectra used as said indices is [at least one of]  $1261\text{ cm}^{-1}$  ~~and or~~ 1163 cm<sup>-1</sup>.
13. (Currently Amended) The drug screening method according to claim 9 or 10, wherein said target drug is an antibiotic.
14. (Previously Presented) The drug screening method according to claim 13, wherein said antibiotic is effective against drug resistance bacteria.
15. (Currently Amended) The drug screening method according to claim 9 ~~or 10~~, wherein said target drug is an anti-viral agent.
16. (Currently Amended) A drug screening apparatus comprising:  
  
spectral analysis means that analyzes the absorption or emission spectrum in a specific region for a target drug, and  
  
screening means that screens said target drug using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease within said specific region in accordance with the results of the spectral analysis obtained with said spectral analysis means, and are wave numbers appearing or disappearing after death of the cells, and said specific region includes the infrared region.

17. (Currently Amended) The method according to claim 3, wherein one of the at least two wave numbers of the spectra used as said indices is  $1261.4\text{ cm}^{-1}$ .
18. (Currently Amended) The method according to claim 17, wherein ~~the other~~ another of the at least two wave numbers of the spectra used as said indices is at least one wave number substantially equal to that selected from the group consisting of  $1163.1\text{ cm}^{-1}$ ,  $1168.8\text{ cm}^{-1}$ ,  $1203.6\text{ cm}^{-1}$ ,  $1211.3\text{ cm}^{-1}$ ,  $1224.7\text{ cm}^{-1}$ ,  $1257.5\text{ cm}^{-1}$ ,  $1290.3\text{ cm}^{-1}$  and  $1319.3\text{ cm}^{-1}$ .
19. (Currently Amended) The method according to claim 6, wherein the drug resistance bacteria is methicillin-resistant *Staphylococcus aureus* and the at least two wave numbers of the spectra used as said indices are at least two wave numbers substantially equal to those selected from the group consisting of  $1076.2\text{ cm}^{-1}$ ,  $1195.8\text{ cm}^{-1}$ ,  $1234.4\text{ cm}^{-1}$  and  $1265.2\text{ cm}^{-1}$ .
20. (Currently Amended) The method according to claim 7, wherein the virus is KOS virus and the at least two wave numbers of the spectra used as said indices are wave numbers substantially equal to  $1105.1\text{ cm}^{-1}$  and  $1122.5\text{ cm}^{-1}$ .
21. (Canceled)
22. (Currently Amended) The method according to claim 24 1, wherein said specimen is virus and the at least two wave numbers appearing after death of the cells of the spectra used as said indices are wave numbers substantially equal to  $1105.1\text{ cm}^{-1}$  and  $1122.5\text{ cm}^{-1}$ .
23. (Canceled)
24. (Currently Amended) The method according to claim 23 1, wherein said specimen is virus and the at least two wave numbers disappearing after death of

the cells of the spectra used as said indices are at least two wave numbers substantially equal to those selected from the group consisting of 1037.6 cm<sup>-1</sup>, 1055.0 cm<sup>-1</sup>, 1068.5 cm<sup>-1</sup>, 1103.2 cm<sup>-1</sup>, 1209.3 cm<sup>-1</sup>, 1232.4 cm<sup>-1</sup> and 1274.9 cm<sup>-1</sup>.

25. (Previously Presented) The apparatus according to claim 8 that determines whether or not said specimen is cancer.
26. (Currently Amended) The apparatus according to claim 25, wherein one of the at least two wave numbers of the spectra used as said indices is 1261 cm<sup>-1</sup>.
27. (Previously Presented) The apparatus according to claim 8 that determines whether or not said cells have specific bacteria.
28. (Previously Presented) The apparatus according to claim 27, wherein said specific bacteria are drug resistance bacteria.
29. (Currently Amended) The apparatus according to claim 25, wherein one of the at least two wave numbers of the spectra used as said indices is 1261.4 cm<sup>-1</sup>.
30. (Currently Amended) The apparatus according to claim 29, wherein ~~the other~~ another of the at least two wave numbers of the spectra used as said indices is at least one wave number substantially equal to that selected from the group consisting of 1163.1 cm<sup>-1</sup>, 1168.8 cm<sup>-1</sup>, 1203.6 cm<sup>-1</sup>, 1211.3 cm<sup>-1</sup>, 1224.7 cm<sup>-1</sup>, 1257.5 cm<sup>-1</sup>, 1290.3 cm<sup>-1</sup> and 1319.3 cm<sup>-1</sup>.
31. (Currently Amended) The apparatus according to claim 28, wherein the drug resistance bacteria is methicillin-resistant *Staphylococcus aureus* and the at least two wave numbers of the spectra used as said indices are at least two wave

numbers substantially equal to those selected from the group consisting of 1076.2 cm<sup>-1</sup>, 1195.8 cm<sup>-1</sup>, 1234.4 cm<sup>-1</sup> and 1265.2 cm<sup>-1</sup>.

32. (Previously Presented) The apparatus according to claim 8 that determines whether or not said cells are infected by a specific virus.
33. (Currently Amended) The apparatus according to claim 32, wherein the virus is KOS virus and the at least two wave numbers of the spectra used as said indices are wave numbers substantially equal to 1105.1 cm<sup>-1</sup> and 1122.5 cm<sup>-1</sup>.
34. (Currently Amended) The drug screening method according to claim 12, wherein one of the at least two wave numbers of the spectra used as said indices is a wave number substantially equal to 1261.4 cm<sup>-1</sup> or 1163.1 cm<sup>-1</sup>.
35. (Currently Amended) The drug screening method according to claim 34, wherein ~~the other~~ another of the at least two wave numbers of the spectra used as said indices is at least one wave number substantially equal to that selected from the group consisting of 1168.8 cm<sup>-1</sup>, 1203.6 cm<sup>-1</sup>, 1211.3 cm<sup>-1</sup>, 1224.7 cm<sup>-1</sup>, 1257.5 cm<sup>-1</sup>, 1290.3 cm<sup>-1</sup> and 1319.3 cm<sup>-1</sup>.
36. (Currently Amended) The drug screening method according to claim 14, wherein the drug resistance bacteria is methicillin-resistant *Staphylococcus aureus* and the at least two wave numbers of the spectra used as said indices are at least two wave numbers substantially equal to those selected from the group consisting of 1076.2 cm<sup>-1</sup>, 1195.8 cm<sup>-1</sup>, 1234.4 cm<sup>-1</sup> and 1265.2 cm<sup>-1</sup>.
37. (Currently Amended) The drug screening method according to claim 15, wherein the virus is KOS virus and the at least two wave numbers of the spectra used as

said indices are wave numbers substantially equal to  $1105.1\text{ cm}^{-1}$  and  $1122.5\text{ cm}^{-1}$ .

38. (Canceled)

39. (Currently Amended) The drug screening method according to claim 38, wherein said specimen is virus and the at least two wave numbers of the spectra used as said indices are wave numbers substantially equal to  $1105.1\text{ cm}^{-1}$  and  $1122.5\text{ cm}^{-1}$ .

40. (Canceled)

41. (Currently Amended) The drug screening method according to claim 40, wherein said specimen is virus and the at least two wave numbers of the spectra used as said indices are at least two wave numbers substantially equal to those selected from the group consisting of  $1037.6\text{ cm}^{-1}$ ,  $1055.0\text{ cm}^{-1}$ ,  $1068.5\text{ cm}^{-1}$ ,  $1103.2\text{ cm}^{-1}$ ,  $1209.3\text{ cm}^{-1}$ ,  $1232.4\text{ cm}^{-1}$  and  $1274.9\text{ cm}^{-1}$ .

42. (Previously Presented) The apparatus according to claim 16, wherein said specific region includes the infrared region.

43. (Currently Amended) The apparatus according to claim 16 that determines whether or not said a specimen is cancer.

44. (Currently Amended) The apparatus according to claim 43, wherein one of the at least two wave numbers of the spectra used as said indices is  $1261\text{ cm}^{-1}$ .

45. (Currently Amended) The apparatus according to claim 16 that determines whether or not said cells have specific bacteria.

46. (Previously Presented) The apparatus according to claim 45, wherein said specific bacteria are drug resistance bacteria.

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47. (Currently Amended) The apparatus according to claim 16 that determines whether or not ~~said~~ cells are infected by a specific virus.
48. (Currently Amended) The apparatus according to claim 43, wherein one of the at least two wave numbers of the spectra used as said indices is  $1261.4\text{ cm}^{-1}$ .
49. (Currently Amended) The apparatus according to claim 48, wherein ~~the other~~ another of the at least two wave numbers of the spectra used as said indices is at least one wave number substantially equal to that selected from the group consisting of  $1163.1\text{ cm}^{-1}$ ,  $1168.8\text{ cm}^{-1}$ ,  $1203.6\text{ cm}^{-1}$ ,  $1211.3\text{ cm}^{-1}$ ,  $1224.7\text{ cm}^{-1}$ ,  $1257.5\text{ cm}^{-1}$ ,  $1290.3\text{ cm}^{-1}$  and  $1319.3\text{ cm}^{-1}$ .
50. (Currently Amended) The apparatus according to claim 46, wherein the drug resistance bacteria is methicillin-resistant *Staphylococcus aureus* and the at least two wave numbers of the spectra used as said indices are at least two wave numbers substantially equal to those selected from the group consisting of  $1076.2\text{ cm}^{-1}$ ,  $1195.8\text{ cm}^{-1}$ ,  $1234.4\text{ cm}^{-1}$  and  $1265.2\text{ cm}^{-1}$ .
51. (Currently Amended) The apparatus according to claim 47, wherein the virus is KOS virus and the at least two wave numbers of the spectra used as said indices are wave numbers substantially equal to  $1105.1\text{ cm}^{-1}$  and  $1122.5\text{ cm}^{-1}$ .
52. (Currently Amended) A method for determining at least one of disease type and condition which comprises analyzing an absorption or emission spectrum in a specific region for cells obtained from a specimen, and determining at least one of the disease type and condition by using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of



cancer cells within said specific region in accordance with the results of said spectral analysis, said spectral analysis is an infrared spectral analysis and one of the wave numbers is about  $1261\text{ cm}^{-1}$  and ~~the other~~ another of the at least two wave numbers is at least one wave number substantially equal to that selected from the group consisting of  $1163.1\text{ cm}^{-1}$ ,  $1168.8\text{ cm}^{-1}$ ,  $1203.6\text{ cm}^{-1}$ ,  $1211.3\text{ cm}^{-1}$ ,  $1224.7\text{ cm}^{-1}$ ,  $1257.5\text{ cm}^{-1}$ ,  $1290.3\text{ cm}^{-1}$  and  $1319.3\text{ cm}^{-1}$ , which are wave numbers appearing or disappearing after death of the cells.

53. (Currently Amended) An apparatus for diagnosing at least one of disease type and condition which comprises

spectral analysis means that analyzes an absorption or emission spectrum in a specific region for cells obtained from a specimen, and

diagnostic means that diagnoses at least one of disease type and condition using as indices the appearance of spectra corresponding to at least two wave numbers, wherein said at least two wave numbers are obtained by measuring an absorption or emission spectrum of cancer cells within said specific region in accordance with the results of the spectral analysis obtained with said spectral analysis means, said spectral analysis is an infrared spectral analysis and one of the wave numbers is about  $1261\text{ cm}^{-1}$  and ~~the other~~ another of the at least two wave numbers is at least one wave number substantially equal to that selected from the group consisting of  $1163.1\text{ cm}^{-1}$ ,  $1168.8\text{ cm}^{-1}$ ,  $1203.6\text{ cm}^{-1}$ ,  $1211.3\text{ cm}^{-1}$ ,  $1224.7\text{ cm}^{-1}$ ,  $1257.5\text{ cm}^{-1}$ ,  $1290.3\text{ cm}^{-1}$  and  $1319.3\text{ cm}^{-1}$ , which are wave numbers appearing or disappearing after death of the cells.

54. (Currently Amended) A drug screening method comprising: analyzing an absorption or emission spectrum in a specific region for a target drug, and screening said target drug by using as indices the appearance of spectra corresponding to at least two wave numbers obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease ~~within said specific region in accordance with the results of said spectral analysis, said spectral analysis is an infrared spectral analysis , which are wave numbers appearing or disappearing after death of the cells, said specific region is an infrared region~~, and the target drug is at least one selected from the group consisting of an anti-cancer agent, an antibiotic and an anti-viral agent.
55. (Currently Amended) A drug screening apparatus comprising:  
spectral analysis means that analyzes the absorption or emission spectrum in a specific region for a target drug, and  
screening means that screens said target drug using as indices the appearance of spectra corresponding to at least two wave numbers obtained by measuring an absorption or emission spectrum of cancer cells, bacteria or virus within said specific region, which cells, bacteria or virus cause specific disease, ~~within said specific region in accordance with the results of the spectral analysis obtained with said spectral analysis means, which are wave numbers appearing or disappearing after death of the cells, said spectral analysis is an infrared spectral analysis~~ said specific region is an infrared region, and the target drug is at least

one selected from the group consisting of an anti-cancer agent, an antibiotic and an anti-viral agent.

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